

CLAIMS

What is claimed is:

1. An integrated circuit (IC) device assembled in a package (5) having a plurality of die including a first device (20) and at least one additional device (30), the IC comprising: a substrate (10); a first device (20), having bonding pads including ground connections, the first device die attached to the substrate (10); and an additional device die (30), having bonding pads including ground connections, the additional device die disposed on top of the first device die the additional device die attached to the first device die, wherein the ground connections of the first device die are connected to the ground connections of the additional device.
2. The IC of claim 1, wherein the ground connections of the first device are connected to the ground connections of the additional device with a conductive adhesive (25).
3. . The IC of claim 2 wherein the ground connections may be at voltages other than zero.
4. The IC of claim 2 further comprising, an insulating material placed in between the first device die and the additional device die, the insulating material having openings allowing for the connecting of ground connections therethrough between the first device and the second device.
5. The IC of claim 4 wherein, conductive adhesive is flowed through the openings in the insulating material connecting the ground connections between the first device and the second device.
6. The IC of claim 2, further comprising: a package ground connection, wherein the package ground connection is connected the ground connections of the first device die and the additional device die at a plurality of predetermined locations.
7. The IC of claim 1 wherein, the first device die is of a first predetermined area and the second device die is of an additional predetermined area, the first predetermined area being greater than the additional predetermined area.
8. The IC of claim 1 wherein, the first device die, having a core region surrounded by a pad ring, includes ground connections in at least one of the following locations: about the center of the first device die in the core region, on predetermined locations about the pad ring of the first device die; and the additional device die, having a core regions surrounded by a pad ring and ground connections on a predetermined

underside location:, includes ground connections in at least one of the following locations: about the center of the additional device die in the core region, on predetermined locations about the pad ring of the additional device die, at predetermined locations on the underside location of the additional device die.

9. The IC of claim 5 wherein, the ground connections on the predetermined locations of the pad ring of the first device die are coupled to the ground connections on the predetermined locations of the pad ring of the second die are coupled with a plurality of ground straps.

10. The IC of claim 6 wherein, the plurality of ground straps are comprised of a conductive material including at least one of the following: gold, silver, aluminum, copper, and alloys thereof.

11. The IC of claim 6, wherein the plurality of ground straps include at least one of the following: a lattice structure, ground straps connecting grounds nearest one another.

12. A method (1000) for packaging an integrated circuit (IC) having a plurality of die including a first device and at least one additional device, and having a grounded substrate, the method comprising: attaching a first device (1015) onto a substrate; applying an insulating material (1025) on the first device; attaching an additional device(1030) onto the insulating material; and bonding the first device to the additional device at predetermined ground connections on the first device to predetermined ground connections on the additional device, and bonding the predetermined ground connections to ground nodes of the substrate.

13. The method of claim 11, wherein the bonding of the first device to the additional device at predetermined ground connections includes at least one of the following: using a conductive adhesive, a solder reflow, and a conductive interposer.

14. The method of claim 12, wherein the insulating material has predefined openings therein, the predefined openings corresponding to the predetermined ground connections on the first device and the predetermined ground connections on the additional device.

15. A method for packaging an integrated circuit (IC) having a plurality of die including a first device and at least one additional device, the method comprising; attaching a first device onto a substrate; applying an conductive material on the first device; and attaching an additional device onto the conductive material, wherein the conductive material

connects the first device at predetermined ground connections to predetermined ground connections on the additional device,